

MISCELLANEOUS NEW ASCLEPIADACEAE AND APOCYNACEAE FROM TROPICAL AMERICA

ROBERT E. WOODSON, JR.

*Assistant Curator of the Herbarium, Missouri Botanical Garden
Assistant Professor in the Henry Shaw School of Botany of Washington University*

APOCYNACEAE

RAUWOLFIA sarapiquensis Woodson, spec. nov. Arbor ca. 15 m. alta omnino glabra; ramulis crassiusculis post exsiccationem plus minusve angulatis cortice luteo-brunneo tectis, internodiis 3–4 cm. longis. Folia ternata inaequalia in axillis glandulosa, petiolis 1.5–2.5 cm. longis; laminis obovato-ellipticis abrupte acuminatis basi sensim attenuatis 14–20 cm. longis 5.0–6.5 cm. latis coriaceis, venis secundariis subhorizontalibus. Inflorescentia foliis dimidia brevior subterminalis ternata, pedunculo primario ca. 6 cm. longo deinde repetite 4-vel 3-natim composito. Flores albi; pedicello 0.4 cm. longo; calycis laciniis ovato-subreniformibus rotundatis 0.25–0.3 cm. longis; corollae tubo cylindrico 0.5 cm. longo ca. 0.15 cm. diametro, lobis oblongis rotundatis adscendentibus 0.4 cm. longis ca. 0.15 cm. latis; staminibus prope fauces affixis 0.1 cm. longis apiculatis; ovario syncarpo 0.15 cm. longo nectarium annulare minute crenatum ca. bis superante; stylo gracili 0.15 cm. longo, stigmatate capitato 0.05 cm. longo dense papillato apice minute 2-lobato. Baccae ignotae.—COSTA RICA: Vara Blanca de Sarapiquí, north slope of Central Cordillera, between Poás and Barba volcanoes, alt. 1460 m., Febr., 1938, *A. F. Skutch 3556* (U. S. Nat. Herb., TYPE).

Somewhat intermediate between the sections *Grandiflorae* and *Andinae*, and not obviously related to any species known to occur in Central America.

Quadricasaea Woodson, gen. nov. (Apocynaceae-Plume-roideae-Tabernaemontaninae). Calyx inaequaliter 5-partitus intus multiglanduligerus. Ovarii carpellae liberae ovariis

numerosis multiseriatim positis nectario annulato valde adnato in stylo gracili gradatim productae stigmatе subumbraculiformi obscure 2-lobato. Corolla salverformis limbi lobis 5 sinistrorse obtengentibus. Antherae sessiles anguste sagittatae omnino fertiles.—Frutices volubiles. Folia opposita eglandulosa. Inflorescentia bostrycino-racemosa aut lateralis aut terminalis. Genus in honorem cl. J. Cuatrecasatis dedicavatur. Species typica prima sequitur.

QUADRICASAEA inaequilateralis Woodson, spec. nov. Frutex volubilis sat magnus. Folia opposita breviter petiolata late elliptica apice breviter acuminata basi inaequilateraliter obtusa 20–30 cm. longa 7.5–9.0 cm. lata firme membranacea glabra, petiolis 0.4 cm. longis. Inflorescentia lateralis bostrycino-racemosa, pedunculo ca. 2 cm. longo, pedicellis ca. 1 cm. longis, omnino glabra; calycis lobis valde inaequalibus ovatis vel late ovato-oblongis apice rotundatis 0.7–1.0 cm. longis ut dicitur subpetalaceis albidis glabris; corollae flavae extus glabrae tubo ca. 3.25 cm. longo basi ca. 0.45 cm. diam. paulo infra medium usque 0.2 cm. diam. constricto ibique staminifero deinde gradatim ampliato, faucibus ca. 0.4–0.45 cm. diam., lobis oblique elliptico-oblongis obtusis ca. 2.5 cm. longis patulis; antheris angustissime sagittatis acuminatis basi acutissime 2-lobatis sessilibus glabris ca. 0.6 cm. longis; ovariis ovoideis glabris ca. 0.3 cm. longis in stylo gracili gradatim productis, nectario annulato adnato ca. 0.1 cm. alto, stigmatе ca. 0.1 cm. longo. Fructus ignoti.—COLOMBIA: COMISARIA DEL CAQUETA: Florencia, entre matorrales residuales de monte, alt. 400 m., March 29, 1940, *J. Cuatrecasas 8814* (U. S. Nat. Herb., TYPE).

QUADRICASAEA caquetensis Woodson, spec. nov. Frutex volubilis sat magnus. Folia opposita breviter petiolata elliptico-oblonga apice anguste acuminata basi aequilateraliter acuteque cuneata cum petiolo 14–20 cm. longa 2.5–5.5 cm. lata firme membranacea glabra. Inflorescentia subterminalis bostrycino-racemosa pauciflora, pedunculo ca. 0.5 cm. longo, pedicellis ca. 1 cm. longis, omnino glabra; calycis lobis valde inaequalibus ovatis vel late ovato-oblongis apice rotundatis

0.7–1.2 cm. longis ut videntur subpetalaceis albidis glabris; corollae flavae extus glabrae in alabastro sat maturo tubo ca. 3 cm. longo.—COLOMBIA: COMISARIA DEL CAQUETA: Cordillera Oriental, vertiente oriental, Sucre, bosques entre 1000 y 1300 m. alt., April 4, 1940, *J. Cuatrecasas 9062* (U. S. Nat. Herb., TYPE).

Quadricasaea is particularly outstanding because it is the only genus of the American Tabernaemontaninae with the habit of a liana, all other genera being trees or shrubs. The structure of the corolla, inflated at base and throat and constricted at the insertion of the stamens, is also noteworthy. Although it appears somewhat dangerous, upon short acquaintance, to describe two species of such close affinity from the same general region, the leaves of *Q. inaequilateralis* and *Q. caquetensis* are so dissimilar that it is quite logical to do so. The inflorescences are probably specific as well.

MANDEVILLA *jasminiflora* Woodson, spec. nov. Frutex ca. 3 m. altus; ramulis crassiusculis teretibus valde lenticellatis glabris. Folia opposita petiolata oblongo-elliptica acuminata basi obtusa 3.5–8.0 cm. longa 1.0–1.25 cm. lata subcoriacea margine post exsiccationem revoluta supra glabra nervo medio in longitudinem sparse glandulifero subtus inconspicue pilosula, petiolo ca. 0.8–1.5 cm. longo glabro. Inflorescentia lateralis racemosa pluriflora, pedunculo ca. 3.0–3.5 cm. longo parce pilosulo, pedicellis tenuibus ca. 0.7 cm. longis pilosulis, bracteis scariaceis minimis; calycis laciniis ovato-lanceolatis acutis extus ca. 0.2 cm. longis pilosulis, squamellis oppositis multifissis; corollae flavae campanulatae extus glabrae tubo 0.3 cm. longo basi ca. 0.1 cm. diam. faucibus ca. 0.3 cm. diam. intus pilosulo, lobis fere erectis ovato-ellipticis acutis ca. 0.35 cm. longis; antheris 0.2 cm. longis basi obscure 2-lobatis glabris; ovariis ovoideis ca. 1 cm. longis glabris, nectariis 5 ovariis fere aequilongis, stigmatum umbraculiformi longe apiculato ca. 0.2 cm. longo. Folliculi ignoti.—COLOMBIA: CALDAS: Quindio, alt. 2900 m., Febr., 1937, *E. Dryander 2145* (U. S. Nat. Herb., TYPE). Although clearly in the subgenus *Exothostemon*, this species is quite unlike any other known at present, both because of its relatively large, shrubby habit and because of the small

flowers of unusual shape which recall the Mexican *M. Syrinx* Woodson, a liana of the subgenus *Eumandevilla*.

MANDEVILLA nerioides Woodson, spec. nov. Frutex ut dicitur altitudine ignotus; ramulis crassiusculis tenuiter alatis glabris cortice rubro-brunneis. Folia opposita brevissime petiolata lineari-lanceolata acuminata basi obscure cordata cum petiolo 4–7 cm. longa 0.3–0.6 cm. lata subcoriacea glabra nervo medio supra in longitudinem pauciglandulifero. Inflorescentia terminalis subspicata pauciflora, pedunculo 2.0–4.5 cm. longo glabro, pedicellis ca. 0.2 cm. longis, bracteis minutissimis; calycis laciniis ovatis anguste obtusis ca. 0.25 cm. longis glabris, squamellis oppositis multifissis; corollae speciosae albido-roseae extus glabrae tubo proprio 1.5 cm. longo basi ca. 0.1 cm. diam., faucibus conico-campanulatis 2 cm. longis, ostio ca. 1.25 cm. diam., lobis oblique obovatis 2 cm. longis patulis; antheris 0.45 cm. longis ellipticis basi brevissime auriculatis glabris; ovariis ovoideis ca. 0.1 cm. longis, nectariis 5 ovaria ca. dimidia aequantibus, stigmatibus umbraculiformi brevissime apiculato ca. 0.1 cm. longo. Folliculi ignoti.—COLOMBIA: RIO GUAVIARE: San José del Guaviare, terrenos graníticos, 270 m. alt., Nov. 12, 1939, *J. Cuatrecasas* 7674 (U. S. Nat. Herb., TYPE). Closely related to *M. lancifolia* Woods., but differing in its stouter habit, larger flowers, and broader leaves with cordate bases.

MALOUETIA Cuatrecasatis Woodson, spec. nov. Arbuscula altitudine ignota; ramulis crassiusculis glabris maturitate cortice griseo-brunneo bene lenticellato. Folia opposita petiolata oblongo-elliptica apice obtuse acuminata basi late cuneata 4–6 cm. longa 1–2 cm. lata omnino glabra supra nitidula subtus opaca in axillis nervi medii rare foveata, petiolo 0.4–0.5 cm. longo. Umbellae laterales 1– vel pauci-florae, pedicellis 1.2 cm. longis glabris; calycis laciniis ovatis rotundatis vel obtusis 0.2–0.25 cm. longis subfoliaceis glabris vel indistincte papillatis, squamellis solitariis alternatis; corollae salverformis albae tubo ca. 1 cm. longo basi ca. 0.1 cm. diam. sub medio usque 0.25 cm. diam. dilatato deinde gradatim contracto,

faucibus abrupte campanulatis ca. 0.2 cm. diam., ostio conspicue calloso-annulato, lobis elliptico-ovatis obtusis 1.2 cm. longis extus papillatis intus dense minuteque puberulis; antheris valde exsertis ca. 0.2 cm. longis dense puberulo-papillatis; ovariis ca. 0.15 cm. longis puberulo-papillatis, nectariis concretescentibus ovaria subaequantibus. Folliculi ignoti.—COLOMBIA: VAUPÉS: Mitu, bosque, 200 m. alt., Oct. 20, 1939, *J. Cuatrecasas* 7285 (U. S. Nat. Herb., TYPE). Closely allied to *M. lata* Mgf. of the lower Amazon Valley, but differing in the blunt calyx lobes of heavier texture and in the longer, narrower corolla tube.

ASCLEPIADACEAE

CYNANCHUM (*METALEPIS*) **subpaniculatum** Woodson, spec. nov. Frutex volubilis; ramulis crassiusculis glabris. Folia longe petiolata late ovato-cordata sinu aperto apice abrupte acuteque subcaudato-acuminata 14–16 cm. longa 10–12 cm. lata glabra firme membranacea nervo medio supra basi glandulifero, petiolo 9–10 cm. longo glabro. Inflorescentia axillaris foliis ca. duplo longior bostrycine spicato-paniculata multiflora, pedunculis sparse pilosulis; calycis laciniis oblongo-ellipticis acutis 0.35 cm. longis extus minute papillatis; corollae rotatae lobis ovato-ellipticis acuminatis 0.4–0.45 cm. longis extus papillatis intus papillatis prope apicem conspicue barbatis plus minusve retro-revolutis; gynostegio breviter stipitato apice ca. 0.5 cm. diam. stigmatate umbonato; polliniis leviter reniformibus ca. 0.09 cm. longis, caudiculis gracilibus ca. 0.1 cm. longis, corpusculo minuto; corona pentagulo-patelliformi ca. 0.5 cm. diam. intus dense papillata, segmentis late emarginatis. Folliculi ignoti.—COLOMBIA: vicinity of Santa Marta, alt. 2000 ft., June, 1898–1901, *H. H. Smith* 2410 (Herb. Missouri Bot. Gard., TYPE).

Metalepis cubensis Griseb. (*Cynanchum cubense* (Griseb.) Woods.), under which this specimen was distributed, differs conspicuously in the smaller, nearly triangular leaves, in the uniformly papillate corollas, and in structural characters of the gynostegium and pollinia. A discussion of *Metalepis* as a

subgenus of *Cynanchum* will be found in ANN. MISSOURI BOT. GARD. 28: 213-214. 1941.

CYNANCHUM (METALEPIS) **Haughtii** Woodson, spec. nov. Frutex volubilis graciliusculus; ramulis minutissime pilosulis glabrativae. Folia petiolata ovato-cordata basi vix lobata fere rotundato-subtruncata 9-12 cm. longa 7-8 cm. lata apice abrupte angusteque acuminata glabra membranacea nervo medio supra basi glandulifero, petiolo 2.5-3.0 cm. longo minutissime pilosulo vel glabro. Inflorescentia axillaris paniculata multiflora foliis ca. dimidia longior, pedunculis dense puberulis, pedicellis 0.4 cm. longis puberulis; calycis laciniis oblongis obtusis 0.3 cm. longis sparse pilosulis; corollae rotatae viridulae lobis ovatis acutis ca. 0.25 cm. longis supra subcucullatis prope apicem incrassatis ibique minute pilosulis caeterumque papillatis vel glabris; gynostegio subsessili apice ca. 0.2 cm. diam., stigmatate umbonato; polliniis leviter reniformibus ca. 0.075 cm. longis, caudiculis 0.04 cm. longis, corpusculo minuto; corona pentagulo-rotata ca. 0.225 cm. diam., segmentis angustatis emarginatis conduplicatis inflexis Folliculi ignoti.—ECUADOR: roadside near Paján, alt. ca. 200 m., Dec. 10, 1939, O. Haught 2985 (Herb. Missouri Bot. Gard., TYPE). Outstanding in the subgenus because of the small flowers and peculiar subcucullate corolla lobes.

MATELEA (HELIOSTEMMA) **inops** Woodson, spec. nov. Frutex volubilis; ramulis graciliusculis ferrugine pilosis, internodiis sat elongatis. Folia opposita petiolata ovata apice acuminata basi late cordata 5.5-9.0 cm. longa 3-5 cm. lata membranacea utrinque ferrugine puberulo-papillata, petiolis 2.5-6.0 cm. longis similiter vestitis. Inflorescentia extra-axillaris umbelliformis pluriflora, pedunculo 0.5-0.7 cm. longo, pedicellis 1.5-2.0 cm. longis puberulo-papillatis. Calycis lobi ovati acuti 0.4 cm. longi puberulo-papillati pilis longioribus interspersis. Corolla rotata ut creditur viridula ca. 2 cm. diam. extus intusque sparse pilosula; lobis ovatis acutis ca. 0.6 cm. longis. Corona simplicissima disciformis discolorata ca. 0.35 cm. diam. sub antheris inconspicue ligulata. Gynostegium sessile;

stigmate late 5-gono ca. 0.08 cm. diam. depresso; antheris sub stigmate positis, polliniis obpyriformi-subfalciformibus valde excavatis cum caudiculo plicate alato fere aequilongo ca. 0.07 cm. longis, corpusculo mediocri.—MEXICO: CHIAPAS: Cascada Siltepec, Aug. 5, 1937, *E. Matuda 1731* (Herb. Missouri Bot. Gard., TYPE; Herb. Univ. Michigan, ISOTYPES). Noteworthy amongst the other liana species of subgen. *HelioSTEMMA* because of the very simple discoid corona, somewhat resembling that of the fruticulose *M. caudata*.

MATELEA (HELIOSTEMMA) **tinctoria** Woodson, spec. nov. Frutex volubilis; ramulis graciliusculis glabris, internodiis sat elongatis. Folia opposita longe petiolata late ovata apice abrupte angusteque subcaudato-acuminata basi rotundata vel obscurissime cordata 14–17 cm. longa 7–11 cm. lata membranacea glabra post exsiccationem sordide purpureo-discolorata, petiolis ca. 5 cm. longis. Inflorescentia extra-axillaris longe pedunculata racemiformis pauciflora, pedunculo ca. 8 cm. longo, pedicellis ca. 2 cm. longis dense minuteque ferrugineo-papillatis; calycis lobis ovato-lanceolatis acuminatis ca. 1.2 cm. longis extus minutissime ferrugineo-papillatis; corolla campanulato-rotata viridula glabra vel extus indistincte papillata post exsiccationem dilute livido-discolorata, faucibus late campanulatis ca. 0.5 cm. altis ca. 1.2 cm. diam, lobis triangularibus acutis ca. 1.5 cm. longis patulis; gynostegio breviter stipitato, stigmate late 5-gono ca. 0.35 cm. diam.; antheris sub stigmate positis sed appendicibus apicalibus cerocandidis super eo convergentibus, polliniis triangulo-falciformibus in caudiculo gradatim attenuatis ca. 0.1 cm. longis, corpusculo mediocri; corona carnosae rotata simplici profunde 5-lobata per partitiones 5 carnosas ad gynostegium annexa. Folliculi ignoti.—COSTA RICA: Vara Blanca de Sarapiquí, north slope of Central Cordillera, between Poás and Barba volcanoes, alt. 1890 m., Febr., 1938, *A. F. Skutch 3589* (U. S. Nat. Herb., TYPE). Closely related to *M. picturata* (Hemsl.) Woods. and *M. Pittieri* (Standl.) Woods., but probably more closely to the latter, from which it is distinguished by its much larger flowers and leaves as well as by the more simple structure of

the corona. The leaves of these three species, as well as others of the subgenus *Heliostemma*, produce a peculiar blackish purple dye upon wilting, as do the flowers also to a lesser extent. The peculiar whitened anther appendages are noteworthy also.

MATELEA (EUMATELEA?) cynanchiflora Woodson, spec. nov. Suffrutex volubilis dense ferrugineo-pilosulus; ramulis graciliusculis, internodiis sat elongatis. Folia opposita oblongo-elliptica apice anguste acuminata basi obtusa 6.0–10.5 cm. longa 2–4 cm. lata membranacea utrinque ferrugineo-pilosa, petiolis 1.0–1.25 cm. longis. Inflorescentia extra-axillaris sessilis umbelliformis pluriflora, pedicellis 1.0–1.3 cm. longis ferrugineo-pilosis; calycis lobis ovatis acuminatis 0.15 cm. longis extus ferrugineo-pilosulis; corolla rotata luteo-albida ca. 1.2 cm. diam., lobis late ovatis rotundatis ca. 0.4 cm. longis extus sparse pilosulis intus minute papillatis; corona cyathiformis ca. 0.15 cm. alta 0.3 cm. diam. margine subintegra per partitiones 5 carnosas ad gynostegium annexa; gynostegio manifeste (ca. 0.15 cm.) stipitato, stigmatate late 5-gono ca. 0.2 cm. diam.; antheris sub stigmatate positis, polliniis oblique obpyriformibus fere subfalciformibus cum caudiculo ca. 0.075 cm. longis. Folliculi ignoti.—**COSTA RICA:** vicinity of El General, Prov. San José, alt. 640 m., Jan., 1939, *A. F. Skutch 4071* (U. S. Nat. Herb., TYPE). The deep cyathiform corona is quite unusual for *Matelea*, and the whole superficial aspect of the plant suggests *Cynanchum*. The pollinia, on the other hand, show the species to be Gonoloboid. It is not closely related to any other known species of *Eumatelea*, and may eventually necessitate the erection of a separate subgenus.

MATELEA (EUMATELEA) Steyermarkii Woodson, spec. nov. Frutex volubilis; ramulis graciliusculis ferrugineo-pilosis tandem glabratis, internodiis sat elongatis. Folia oblongo-ovata apice anguste acuminata basi sat indistincte cordata 5–9 cm. longa 1.5–3.0 cm. lata membranacea utrinque ferrugineo-pilosa, petiolis 1.5–2.5 cm. longis ferrugineo-pilosis. Inflorescentia umbelliformis pauciflora, pedunculo 2.5 cm. longo, pedicel-

lis 1.5 cm. longis ut in pedunculo ferrugineo-pilosis; calycis laciniis oblongo-ovatis acuminatis 0.7–0.8 cm. longis extus ferrugineo-pilosulis; corolla rotata alba venis venulisque insigniter viridibus extus intusque glabra vel minutissime papillata, lobis ca. 1.2 cm. longis late ovatis rotundatis patulis; gynostegio 0.4 cm. alto; antheris sub stigmatate positis, polliniis excavato-pyriformibus cum caudiculo pellucido ca. 0.1 cm. longis, corpusculo mediocri; corona complicata urceolata ca. 0.3 cm. alta ca. dimidia superiori profunde multifissa basi paulo inflata integra (an corollae fauces ?) minutissime papillata per digitos 5 carnosos anguste oblongos ca. 0.2 cm. longos ad gynostegium annexa. Folliculi ignoti.—GUATEMALA: DEPT. SAN MARCOS: upper south-facing forested slopes of Volcán Tajumulco, between Canojas and top of ridge, 7 mi. from San Sebastián, alt. 3300–3900 m., Febr. 16, 1940, *Steyermark 35810* (Herb. Missouri Bot. Gard., TYPE).—This species well illustrates the tremendous complexity of the corona of most species of *Matelea*. The radial partitions of the corona are so conspicuous that they are apt to be mistaken for the dorsal anther appendages of *Gonolobus*, from which they are quite distinct morphologically.

MATELEA (*EUMATELEA* § *RETICULATAE*) **tenuis** Woodson, spec. nov. Frutex volubilis; ramulis tenuibus inconspicue pilosulis, internodiis sat elongatis. Folia opposita elliptico-oblongata apice acuminata basi obtusa 5–7 cm. longa 1.5–2.3 cm. lata delicate membranacea glabra; petiolis 0.5–0.7 cm. longis inconspicue pilosulis. Inflorescentia extra-axillaris racemiformis pauciflora, pedunculo ca. 0.3–0.5 cm. longo minute papillato, pedicellis ca. 0.5 cm. longis minute puberulo-papillatis. Flores ut dicuntur virides. Calycis lobi late ovati acuti 0.25 cm. longi extus puberulo-papillati. Corolla rotato-subcampanulata ca. 1 cm. diam.; lobis ovatis obtusis ca. 0.3 cm. longis extus intusque minute papillatis. Corona patelliformis obscure 5-lobata caeterumque integra ca. 0.4 cm. diam. per partitiones 5 latas adscendentes ad gynostegium annexa. Gynostegium ca. 0.2 cm. stipitatum; stigmatate late 5-gono ca. 0.2 cm. diam.; antheris sub stigmatate positis, polliniis horizontalibus obpyri-

formibus profunde excavatis cum caudiculis ca. 0.1 cm. longis, corpusculo mediocri. Folliculi ignoti.—GUATEMALA: IZABAL: vicinity of Quirigua, alt. 75–225 m., May 15–31, 1922, *P. C. Standley 24036* (Gray Herb., TYPE). Outstanding amongst the species of § *Reticulatae* because of the thin, narrow leaves and the small, subcampanulate corollas.

MATELEA (*EUMATELEA*) **violacea** Woodson, spec. nov. Frutex volubilis; ramulis ferrugineo-pilosis, internodiis sat elongatis. Folia late oblongo-ovata apice anguste acuminata basi late cordata 9–13 cm. longa 4–6 cm. lata membranacea utrinque pilosa, petiolis 3.0–3.5 cm. longis ferrugineo-pilosis. Inflorescentia subsessilis pauciflora, pedunculo ca. 0.5 cm. longo piloso, pedicellis ca. 1 cm. longis pilosis; calycis laciniis late ovatis anguste acuminatis extus ferrugineo-pilosis; corolla rotata violacea venis venulisque reticulatis brunneo-purpurascens extus laxe ferrugineo-pilosa intus minute papillata, lobis late ovatis obtusis ca. 0.5 cm. longis patulis; gynostegio sessili; antheris pro parte sub stigmatate positae, pollinibus excavatopyriformibus cum caudiculis latis pellucidis ca. 0.15 cm. longis, corpusculo mediocri, stigmatate subplano late 5-gono ca. 0.3 cm. diam.; corona rotata patula late 5-lobata ca. 1 cm. diam. complicate multifissa per digitos 5 inconspicuos ad gynostegium annexa. Folliculi ignoti.—GUATEMALA: DEPT. SAN MARCOS: between Canjulá and La Unión Juárez, near southeast portion of Volcán Tacaná, alt. 2000–3000 m., Febr. 22, 1940, *J. A. Steyermark 36445* (Herb. Missouri Bot. Gard., TYPE; Herb. Field Mus., ISOTYPE).—Beside the peculiar coloration of the corolla, this species is distinguished by much the same fimbriation of the corona as in *M. Steyermarkii*, but in rotate form and with very much less conspicuous radial partitions.

MATELEA (*LABIDOSTELMA*) **Hintoniana** Woodson, spec. nov. Frutex volubilis sat validus; ramulis ferrugineo strigoso-pilosis, internodiis sat elongatis. Folia opposita late ovata apice acuminata basi late cordata 6–10 cm. longa 3.5–6.5 cm. lata membranacea utrinque pilosula, petiolis 4.5–6.0 cm. longis sparse pilosulis. Inflorescentia extra-axillaris laxe racemi-

formis pluriflora, pedunculo 3.0–3.5 cm. longo pilosulo, pedicellis 2.5–3.0 cm. longis similiter vestitis; bracteis ovato-lanceolatis 0.5–0.7 cm. longis subfoliaceis pilosulis; calycis lobis elliptico-lanceolatis acuminatis ca. 1.2 cm. longis subfoliaceis pilosulis; corolla late campanulato-rotata fere plana ca. 4 cm. diam. speciosa praecipue ad lobos roseo-tincta et more subgen. *Dictyanthi* reticulata; lobis late triangularibus acutis ca. 1 cm. longis; corona complicate 5-lobata, lobis 3-lobulatis more *M. Quirosii* (*Labidostelma guatemalense*) compositis; gynostegio subsessili, stigmatate obtuse 5-gono depresso. Folliculi ignoti.—MEXICO: Bejucos, alt. 610 m., District of Temascaltepec, Mexico, Aug. 24, 1932, *G. B. Hinton 1450* (Gray Herb., TYPE). Closely related to *M. Quirosii* (Standl.) Woods. (*Labidostelma guatemalense* Schltr., which has somewhat smaller flowers with ovate-acuminate lobes, not conspicuously reticulate as in *M. Hintoniana*).

MATELEA (IBATIA ?) **glaberrima** Woodson, spec. nov. Frutex volubilis glaberrimus; ramulis validiusculis, internodiis longissimis. Folia ovato-elliptica apice acuminata basi rotundata 13–18 cm. longa 5–11 cm. lata; petiolis 1–3 cm. longis. Inflorescentia umbelliformis pauciflora, pedunculo subnullo, pedicellis ca. 1 cm. longis. Flores ut dicuntur virides brunneique. Calycis lobi ovato-lanceolati acuminati 0.5 cm. longi extus minutissime puberulo-papillati. Corolla rotata extus glabra intus puberulo-papillata ca. 1.75 cm. diam.; lobis ovato-ellipticis acutis ca. 0.8 cm. longis patulis. Corona poculiformis valde 5-gona margine undulata, sinis margine 2-lamellatis ibique ligula inconspicua munitis, anguli margine revoluti. Gynostegium substipitatum; stigmatate valde 5-gono depresso; antheris sub stigmatate positis, polliniis a corpusculo aliquantulum descendentes cum caudiculis brevibus ca. 0.15 cm. longis, corpusculo mediocri. Folliculi ignoti.—GUATEMALA: PETEN: Uaxactun, March 24, 1931, *H. H. Bartlett 12300* (Herb. Missouri Bot. Gard., TYPE; Herb. Univ. Michigan, ISOTYPE). This species is rather intermediate between the subgenera *Ibatia* and *Macroscepis*. In my key to the subgenera of *Matelelea*, it will fall into the former after some persuasion, but it is probable that

a new subgenus will have to be erected for it eventually, since it is quite unlike any other described species, especially with regard to the peculiar corona, as well as the large coriaceous leaves.

GONOLOBUS lanugiflorus Woodson, spec. nov. Frutex volubilis omnino fulvo-hispidus; ramulis crassiusculis. Folia late oblongo-ovata apice abrupte angusteque subcaudato-acuminata basi late cordata 9–14 cm. longa 4.5–7.5 cm. lata membranacea, petiolis 2.0–3.0 cm. longis. Inflorescentia umbelliformis subsessilis, pedicellis ca. 1 cm. longis. Flores viriduli; calycis lobis lanceolatis acuminatis ca. 1 cm. longis; corollae rotatae extus intusque fulvo-hispidulae lobis ovato-lanceolatis anguste acuminatis ca. 1.5 cm. longis, annulo faucium bene manifesto ca. 0.05 cm. alto minute fulvo-hispidulo integro; corona rotata per saepta 5 radialia 5-partita margine minutissime crenulata glabra; gynostegio subsessili ca. 0.45 cm. diam; antheris circum stigma positis, appendiculis bene manifestis carnosus lobis valde divaricatis obtusis ca. 0.1 cm. longis, polliniis subhorizontalibus excavato-pyriformibus cum caudiculo lato pellucido ca. 0.15 cm. longis, corpuseculo magno sagittato ca. 0.05 cm. longo, stigmatate 5-gono umbonato. Folliculi ignoti.—GUATEMALA: DEPT. SAN MARCOS: vicinity of town of Tajumulco, northwestern slopes of Volcán Tajumulco, alt. 2300–2800 m., Febr. 28, 1940, *J. A. Steyermark 36906* (Herb. Missouri Bot. Gard., TYPE; Herb. Field Mus., ISOTYPE).—The uniformly dense, fulvous indument and subsessile cymes of this species are quite different from any species of the genus known to me.

GONOLOBUS longipetirolatus Woodson, spec. nov. Frutex volubilis; ramulis gracillimis laxe fulvo-hispidulis, internodiis sat elongatis. Folia oblongo-elliptica vel -ovata apice subcaudato-acuminata basi obtusa vel indistincte cordata 4.5–9.0 cm. longa 2–4 cm. lata delicate membranacea glabra; petiolis tenuibus 2–5 cm. longis glabris. Inflorescentia subracemiformis, pedunculo 2.0–2.5 cm. longo papillato, pedicellis aequalibus; calycis lobis anguste lanceolatis longe acuminatis ca. 0.7 cm.

longis extus minute papillatis intus glabris; corollae rotatae glabrae viridis lobis ovato-oblongis acuminatis 0.9 cm. longis marginibus valde involutis interioribus albis inter se conspicue calcaratis, faucibus leviter annulatis; corona conspicue 5-lobata, lobis erectis late oblongis ca. 0.2 cm. longis apice truncatis vel paululo emarginatis marginibus subconduplicatim revolutis; gynostegio longiuscule (0.2 cm.) stipitato; antheris sub stigmatate positis, appendiculis ovatis integris ca. 0.15 cm. longis carnosius patulis, polliniis excavato-pyriformibus cum caudiculo lato pellucido ca. 0.1 cm. longis, corpusculo minuto anguste sagittato; stigmatate anguste 5-gono ca. 0.35 cm. diam. conspicue rostrato. Folliculi ignoti.—GUATEMALA: DEPT. SAN MARCOS: above Finca El Porvenir, up Loma Bandera Shac, lower south-facing slopes of Volcán Tajumulco, alt. 1300–1500 m., March 9, 1940, *J. A. Steyermark 37428* (Herb. Field Mus., TYPE).—Closely related to such species as *G. Lundellii* and *G. cteniophorus*, but differing in the entirely glabrous corolla and peculiar erect corona lobes.

GONOLOBUS **Steyermarkii** Woodson, spec. nov. Frutex volubilis; ramulis sparse fulvo-hispidulis, internodiis sat elongatis. Folia ovato- vel oblongo-elliptica apice subcaudato-acuminata basi late subauriculato-cordata 7–25 cm. longa 2.5–12.0 cm. lata firme membranacea utrinque pagina sparsius nervo medio basi supra densius fulvo-hispidula, petiolis 2–6 cm. longis sparse hispidulis. Inflorescentia racemiformis rarius corymbiformis, pedunculo 2–4 cm. longo saepissime simplici rare 2-fido minute papillato, pedicellis 2.5–3.0 cm. longis sparse pilosulis; calycis lobis oblongo- vel ovato-lanceolatis acuminatis ca. 1.5 cm. longis ca. 0.5–0.7 cm. latis foliaceis glabris vel inconspicue papillatis; corollae rotatae dilute viridis glabrae lobis late oblongo-ellipticis adscendentibus late acutis marginibus revolutis ca. 1.2 cm. longis ca. 0.5 cm. latis, faucibus annulatis ca. 0.4 cm. altis ostio dense pilosis caeterumque glabris albidis; corona annulata margine minute crenulata corollae faucibus adnata et eis aequilonga per saepta 5 radialia 5-partita; gynostegio longiuscule (ca. 0.45 cm.) stipitato; antheris sub stigmatate positis, appendiculis dorsalibus an-

guste 2-lobatis, lobis angustis divaricatis ca. 0.1 cm. longis, polliniis excavato-pyriformibus cum caudiculis latis pellucidis ca. 0.15 cm. longis, corpusculo mediocri, stigmatе anguste 5-gono ca. 0.4 cm. diam. inconspicue umbonato. Folliculi ignoti.—GUATEMALA: DEPT. SAN MARCOS: along Rio Negro near Finca La Pátria, Volcán Tajumulco, alt. 1300–1400 m., March 13, 1940, *J. A. Steyermark 37661* (Herb. Missouri Bot. Gard., TYPE; Herb. Field Mus., ISOTYPE); DEPT. QUEZALTENANGO: slopes and ridges between Quebrada Chicharro and Montana Chicharro, on southeast-facing slopes of Volcán Santa Maria, alt. 1300–1400 m., Jan. 18, 1940, *J. A. Steyermark 34342* (MBG; FM); DEPT. SUCHITEPEQUEZ: southwestern lower slopes of Volcán Zunil, vicinity of Finca Asturias, northeast of Pueblo Nuevo, alt. 1200–1300 m., Febr. 1, 1940, *J. A. Steyermark 35317* (MBG, FM).—A species of the *Trichostelma* complex, differing from *G. stenosepala* (*Fimbristemma stenosepala*) in the nearly glabrous corolline faucal annulus, and from *G. calycosus* (*Trichostelma ciliatum*; *Fimbristemma calycosa*) in the narrower calyx lobes. Our species differs from both in the very scanty indument. Although the three species undoubtedly are very closely related and may subsequently be shown to represent mere varieties of a single species, the constancy of Steyermark's three collections casts some doubt upon that view at this time.

MARSDENIA pseudo-edulis Woodson, spec. nov. Frutex volubilis; ramulis graciliusculis rimosis juventate minute puberulo-papillatis. Folia latiuscule elliptica acute acuminata basi late obtusa 4.5–11.0 cm. longa 1.5–5.0 cm. lata membranacea glabra, petiolis 1.0–2.5 cm. longis puberulo-papillatis. Inflorescentia umbelliformis pauciflora, pedunculo ca. 0.5 cm. longo sparse pilosulo, pedicellis similibus; calycis laciniis ovatis obtusis 0.2 cm. longis pilosulis, corollae campanulatae albae extus sparse intus dense pilosulae tubo ca. 0.2 cm. longo, ostio ca. 0.25 cm. diam. ibique inter lobos umbonibus 2 munito; lobis ovato-ellipticis obtusis 0.3 cm. longis patulis; gynostegio corollae tubum aequante, stigmatе plano vel paululo depresso; antheris ca. 0.1 cm. longis simplicibus, polliniis pyriformibus

vix 0.05 cm. longis caudiculo aequilongo; coronae squamis reniformibus obtusis ca. 0.05 cm. longis. Folliculi ignoti.—GUATEMALA: DEPT. QUEZALTENANGO: lower south-facing slopes of Volcán Santa Maria, between Santa Maria de Jesus and Calahuaché, along great barranco between Finca Pirineos and San Juan Patzulin, alt. 1300–1500 m., Jan. 6, 1940, *J. A. Steyermark 33633* (Herb. Field Mus., TYPE).—Apparently somewhat intermediate between the sections *Pseudomarsdenia* and *Ruehssia*.

MARSDENIA **Steyermarkii** Woodson, spec. nov. Frutex volubilis ut dicitur epiphyticus fere omnino glaber; ramulis crassiusculis glabris, internodiis sat elongatis. Folia oblongo-elliptica apice abrupte acuminata basi rotundata 6–10 cm. longa 2.0–3.5 cm. lata subcoriacea glabra, petiolis 1–2 cm. longis. Inflorescentia modo dichasialis pauciflora, pedunculo 2-fido ca. 2.5 cm. longo glabro, pedicellis ca. 0.4 cm. longis obscure puberulo-papillatis; calycis laciniis ovatis acutis 0.2 cm. longis minutissime puberulo-papillatis. Corolla campanulata alba extus glabra intus pilosula tubo ca. 0.3 cm. longo ca. 0.4 cm. diam. intus dense pilosulo; lobis ovatis obtusis 0.25 cm. longis sparse pilosulis patulis; gynostegio ca. 0.3 cm. longo; antheris ca. 0.2 cm. longis, polliniis cum caudiculo ca. 0.02 cm. longis corpusculum superantibus; coronae squamis ca. 0.2 cm. longis stigma latum conicum superantibus dimidia inferiore late trigonis deinde in ligulam sublinearem productis. Folliculi ignoti.—GUATEMALA: DEPT. SAN MARCOS: along Quebrada Canjulá, between Sibinal and Canjulá, Volcán Tacaná, alt. 2200–2500 m., common on cut-over slopes, epiphyte, Febr. 18, 1940, *J. A. Steyermark 36019* (Herb. Field Museum, TYPE).—This species apparently is the only known Central American member of the section *Verlotia*.

ASCLEPIAS **Scheryi** Woodson, spec. nov. Herba perennis robusta ca. 2 m. alta; caule superiore valido sparsiuscule tomentello. Folia opposita sessilia late trigono-ovata basi late rotundata vel subtruncata apice subrotundata abrupteque mucronulata superiora 13–15 cm. longa 8–12 cm. lata membranacea supra sparsius subtus densius tomentella nervo medio valido venis secundariis multis late arcuatis. Inflores-

centiae ut videntur saepissime binis laterales multiflorae, pedunculis 6–8 cm. longis minute tomentellis, pedicellis vix 2 cm. longis filiformibus similiter vestitis. Flores lactei purpureo-tincti. Calycis lobi ovato-oblongi acuminati ca. 0.4 cm. longi extus minute pilosuli. Corollae rotatae lobi ovato-elliptici acuti vel minutissime emarginati ca. 0.7 cm. longi patenti extus densius intus sparsius puberulo-papillati. Gynostegii columna ca. 0.08 cm. longa ca. 0.25 cm. crassa; foliolis paliformibus brevissime substipitatis ca. 0.5 cm. longis dorso subcarinatis, margine superiore late rotundato, lobis laterali-bus rotundatis dimidia brevioribus, corniculo juxta basim affixo ca. 0.5 cm. longo super stigmatate abrupte inflexo; antheris ca. 0.25 cm. longis, alis basi prominentibus; polliniis rhombo-obpyriformibus cum caudiculis ca. 0.175 cm. longis, corpusculo mediocri. Folliculi maturi non visi immaturi late fusiformi laeves tomentelli.—MEXICO: MICHOACAN: pine woodland near Uruapan, alt. 1850 m., July 16, 1941, *R. W. Schery 167* (Herb. Missouri Bot. Gard., TYPE). The leaves of this species are very distinctive, and are comparable only to those of *A. lanuginosa*, although less densely tomentose beneath. The flowers of *A. Scheryi*, however, are quite different from those of *A. lanuginosa*, in which the hoods are gradually acute and more than twice as long as the anther head.